

Please amend the application as follows:

IN THE CLAIMS

In accordance with amendment practice pursuant to Rule 1.121(c)(1)(i), please enter the "clean" set of "rewritten claims" as set forth below. A "marked up" version of the amended claims is attached hereto as Exhibit 1 pursuant to Rule 1.121(c)(1)(ii).

Sub B2
a 4. (Amended) A DNA molecule encoding a recombinant polypeptide comprising SEQ ID NO:5 or a polypeptide with at least 80% identity to SEQ ID NO:5, and having alcohol and aldehyde dehydrogenase (AADH) activity.

6. (Amended) A recombinant expression vector comprising a DNA sequence selected from the group consisting of SEQ ID NO:1 and DNA sequences which encode a polypeptide with at least 80% identity to SEQ ID NO:5 and having alcohol and aldehyde dehydrogenase activity.

a2 7. (Amended) A recombinant expression vector comprising a DNA sequence selected from the group consisting of SEQ ID NO:1 and DNA sequences which encode a polypeptide with at least 80% identity to SEQ ID NO:5, wherein the DNA sequence is functionally linked to one or more genetic control sequences and is capable of expression of an enzyme including at least one recombinant polypeptide having alcohol and aldehyde dehydrogenase activity.

a2
a1 8. (Amended) A recombinant expression vector of claim 7 which is pSSA102R.

Sub B
a3 10. (Amended) A recombinant organism comprising the recombinant expression vector of claim 6.

11. (Amended) A recombinant organism comprising the DNA molecule of claim 4.

16. (Amended) A process for producing a recombinant enzyme having an alcohol and aldehyde dehydrogenase activity comprising:

a4 a) culturing a recombinant organism comprising an expression vector comprising a DNA molecule encoding a recombinant polypeptide containing an amino acid sequence with at least 80% identity to the polypeptide sequence of SEQ ID NO:5 in an appropriate culture medium; and

b) recovering the recombinant enzyme.

Please add the following claims:

Sub B5
a5 29. An isolated polynucleotide selected from the group consisting of SEQ ID NO:1, and polynucleotide sequences which encode a polypeptide with at least 80% identity to SEQ ID NO:5.

30. An isolated polynucleotide which encodes a fragment comprising at least 95 amino acid residues of a polypeptide with the sequence of SEQ ID NO:5, which fragment has an alcohol and aldehyde dehydrogenase activity.

31. An isolated polynucleotide which encodes a fragment comprising at least 44 amino acid residues of a polypeptide, the polypeptide having at least 80% identity to SEQ ID NO:5 and alcohol and aldehyde dehydrogenase activity.

32. An isolated polynucleotide encoding at least a fragment of SEQ ID NO:5 with alcohol and aldehyde dehydrogenase activity, the fragment of SEQ ID NO:5 being selected from the group consisting of (a) amino acid residues 1 to 95, (b) amino acid residues 1 to 125, (c) amino acid residues 1 to 128, (d) amino acid residues 1 to 135, (e) amino acid residues 180 to 556, combinations of (a) with (e), combinations of (b) with (e), combinations of (c) with (e), and combinations of (d) with (e).

33. A recombinant microorganism comprising expression vector pSSA102R.

34. A recombinant expression vector comprising a polynucleotide sequence according to one of claims 29-32.

35. A recombinant organism according to claim 10 wherein the organism is selected from the group consisting of a microorganism, a mammalian cell, and a plant cell.